Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

A Card.—Many of the most excellent German, French, and Italian vocal compositions are unfit to be sung, owing to the inferior translations in which they are published in this country,

To remove this obstacle, and to render such compositions accessible to the lover of a higher order of vocal music, without offending his taste by an objectionable version of the often beautiful original poetry, an association has been formed, one of whose objects it is to translate from the above named (and other) languages into English, vocal compositions of sterling merit.

The Art Journal will contain from time to time translations by members of the association, which productions, unless other dispositions are made, remain the property of the association.

Publishers desirous of availing themselves of the advantages to be derived from the arrangement, may learn particulars by addressing

Prof. Edw. Wiebe,
of Vassar College,
Poughkeepsie, N. Y.

◆

NOTE-BOOK OF THE PIANIST AND OF THE SINGER.

METHOD OF SINGING OF THE PARIS CONSERVATOIRE.

Coded by MM. Cherubini, committee reporter; Mehul, Gossec, Garat, Plantade, Langle, Richer, Guichard, in collaboration of Mr. Ginguené, member of the Institute, and Signor Bernardo Mengozzi, singing master.

(Translated from the French by Camilla Urso.)

CHAPTER I.

OF THE VOICE.

The voice is the organ of speech and of singing. The philosophical definition of this organ would not be useful in the plan of a singing method; but for the full understanding of the different precepts which have to be expressed in it, it is necessary to establish the principal forms and means which contribute to its action.

Beside the palate, the tongue, the teeth and the lips, which are useful to the mechanism of the voice, several other parts, such as the lungs, the tracheal passage, or wind-pipe, the larynx, the frontal sinus, the maxillary sinus, and the nasal cavities, all contribute to its formation or to its modification.

The Lungs, a kind of bellows placed in the breast, are, by the faculty of dilatation and depression which they are endowed with, a principal means of respiration, without which the voice cannot be formed.

The Tracheal Passage, a sort of a pipe by means of which the air enters the lungs and comes from them, is a cartilaginous body which commences in the bottom of the mouth and sinks down in the breast, where it divides in two parts, which are then denominated *bronchia*, one of these parts conducts air into the right lung, the other into the left lung.

The Larynx is one of the organs of respiration and one principal instrument of the voice; it is the superior part of the tracheal passage.

It has the shape of a short and cylindrical canal, which opens by an oval aperture called "*Glottis.*" By that the air passes up and down when one sings, speaks or breathes: it has the faculty of contraction and expansion, and so produces all the different tones of the human voice.

The glottis is protected by a very thin and flexible cartilage called *Epiglottis.* This cartilage is mobile, and has the shape of an ivy leaf, the interior is concave and its exterior convex.

Its principal attribution is to cover the glottis if needed.

The Frontal Sinuses are two cavities placed in the frontal bone, above the nose and eye-brows.

The Maxillary Sinuses are cavities placed in the bone of the superior jaw, above the anterior alveoli thereof.

The Nasal Cavities are formed by the bony lamina which separate the cavities of the nostril, serving as a partition, and of which the anterior nostrils are the external orifices and the posterior ones the internal orifices.

These different parts have each a more or less direct communication, but all, as it has been said, are essential to form the voice or to modify it.

The air, put in motion by respiration, being the principal agent of the organ of the voice, it is useful to know the mechanism of breathing or respiration.

DEFINITION BY DR. L. MANDL.[*]

The sounds produced by air, aided by the respiratory organs, constitute the voice, which manifests itself under the form of speech and of singing.

The first condition for production of sound is the presence of air in the lungs, spongy bodies which fill the thorax or breast. Air is taken in by inspiration; the diaphragm, a transversal partition which separate the lungs from the intestines, lowers itself; then the lungs are dilated and draw the air through the bronchial cavity and the trachea.

That is a cartilaginous tube placed in the anterior part of the neck, which dividing enters each lung, where it ramificates by ulterior subdivisions more and more tenuous, called bronchia.

The air so accumulated is expelled by expiration, a movement opposite to the preceding, and which returns it through the tracheal passage, there to meet the essential organ of the voice—the Larynx (Adam's apple.)

The air, in passing through it, puts in vibration two horizontal membranes, the "vocal chords," and escapes by the intermediary space called glottis. The vibrations produce the sound, of which the place in the "musical scale" is determined, as is demonstrated by the "laryngoscope,"[†] by the tension and the drawing, more or less decided, of the "vocal chords." The organization of the larynx—the elasticity, density and proportions of the elements—determine the quality of the register, viz: in the males, bass, baritone, tenor; in the females, contralto, mezzo-soprano and soprano.

The sound thus produced by the vibrations of the vocal chords suffers some modifications in the superior part of the larynx, then it passes before the epiglottis, a cartilage situated at the lower part of the tongue, to resound in the cavity of the "pharynx," which communicates upward with the nasal cavities (*fosses nasales.*) When lowering the tongue, one perceives in the very end of that cavity of the pharynx its posterior coat (*parvi posterior*), before which is found a large and floating partition, called the "veil of the palate," having in the middle an appendice, the uvula, and on the sides two arcades, named pillars, which separate at the base to lodge the tonsils.

In front of the "veil of the palate" is situated the "oral cavity," limited at the top by the palate, at the base by the tongue, on the sides by the cheeks, and in front by the teeth and lips.

The tension and the disposition of all those different parts, the organic constitution of the reticular bodies placed behind the oral cavity, etc., determine principally the proper character that each sound takes, and the abstraction made of the intensity and of the tonality. These elements play a very important part in the quality of the voice, numerous observations have proved that without any alteration whatever of the vocal chords, the voice can be profoundly affected by weakness of the pharyngian processes.

To resume the *ensemble* of the respiratory organs contributes in the production of sound; but each of its parts fills a different function.

Indeed, the lungs and the tracheal-passage operate like a whistle (*porte-vent*), the vocal chords like a vibrator (*anche*), and the pharynx with nasal cavities and the buccal cavities as a sonorous tube.

The voice changes with age, by the ossification of the cartilages of the larynx, and by loss of elasticity in the reticular bodies.

It is to such analogous modifications that must probably attribute the change in the voice that is observed during its breaking, during the period of the passage from childhood to puberty, and which makes in the boys the register of an octave lower.

CHAPTER II.

OF THE RESPIRATION.

The respiration is the action performed by the lungs to inhale and return the air.

This action is divided in two alternative movements—the action of inspiring and the action of expiring. In the inspiration the lungs are dilated to introduce the exterior air, and in the expiration they fall down to expel it.

We must observe that the action of respiring in order to sing, differs somewhat from the respiration when speaking.

When we respire to speak or to simply renovate the air in the lungs, the first movement is the inspiration; the diaphragm swells and its superior part comes out a little; then it sinks, for the expiration.

These two movements operate slowly, in ordinary circumstances.

On the contrary, in the action of respiring for singing, when inspiring, the diaphragm must be flattened and then be expanded promptly to swell and inflate the lungs.

---

[*] It has appeared to us necessary to annex to the two first chapters, on the voice and the respiration, the notes that Doctor Mandl has been kind enough to write at our solicitation. They will be of great value to the attentive reader.

We have consequently, by the kindness of Doctor Mandl, an exact and complete definition of the human voice, rendered more precious yet by the authority of the name affixed.

[†] A mirror invented by Mr. Manuel Garcia to examine the larynx.

In the expiration the abdomen comes back very slowly in ordinary breathing and the lungs sink measuredly in order to preserve for the longest time possible, the air which has been introduced in the lungs.

It must escape slowly and without shocking the lungs, or rather slip away, if we may so express ourselves. ‡

DEFINITION BY DR. L. MANDL.

The respiration is composed (see Chapter I.) of two actions which succeed each other in a rhythmic manner, viz., of the inspiration and of the expiration, during which the thorax dilates and contracts itself.

The dilation of the thorax can operate either at its base, in its superior part, or on its sides. Hence we have three kinds of respiration, or rather of respiratory movements.

The first, the diaphragmatic or abdominal respiration happens at the base of the thorax; the abdominal walls are pushed forward during the inspiration by the sinking of the diaphragm; the shoulder, the larynx and the glottis suffer no sensible displacement by the respiratory movement.

In the second type, which constitutes the clavicular respiration, the amplification of the thorax operates specially in its superior part; the clavicle or collar bone elevated by the first rib, the superior part of the sternum, the shoulder, and in the laborious and deep inspirations, the head itself, are displaced; the larynx is then contracting.

In the third and last type, called lateral respiration, the respiratory movement is executed in the lateral and inferior portion of the thorax by the displacement of the inferior and middle ribs and of the lower portion of the sternum.

The dilations of the thorax carry on the lateral diameter, in this last type; on the longitudinal diameter in the abdominal respiration and upon the antero-posterior in the clavicular type. Consequently it is impossible for the breast to dilate itself, at the same time, in every way, that is to say that the three types of respiration co-exist at the same time. But they can succeed each other: So, all profound diaphragmatic inspirations finish in a lateral inspiration, the same that the deep lateral inspiration is terminated by a clavicular inspiration.

These different respiratory types exert a great influence upon the exercise of the voice.

Effectively, all emission of sound can be effectuated only during the expiration by the air expelled, which vibrates the vocal chords.

The *ensemble* of the various sounds which are produced in this manner form the musical phrase, the length of which depends upon the length of the expiration.

This must consequently be effected slowly and without fatigue. This result depends upon the opposition that the inspiratory agents, which seek to retain the air in the lungs, exercise against the expirators, which seek to expel it to produce sound.

The struggle so established is called the vocal strife, and the fatigue which is the result, varies according to the respiratory type and extend upon the thorax and the larynx.

The fatigue of the thoracic walls is very slight in the abdominal respiration, because only one muscle, the diaphragm, acts upon the soft and moving processes, while the opposition offered by the affixed and less flexible different parts of the superior portion of the thorax, displaced in the clavicular respiration, is considerable.

The muscular action is much less in the lateral type, but always more decisive than in the abdominal respiration.

The larynx participates also in the fatigue resulting of the respiratory movement effectively, in singing (clear-tone) the larynx elevates itself in the emission of the sharp sounds and lowers itself in the deep sounds. In order that this displacement can be made without the least fatigue, it is necessary that the larynx preserve its perfect mobility, which happens in the diaphragmatic respiration.

In the clavicular inspiration, on the contrary, the larynx, strongly lowered, obeys with difficulty the displacement required during the emission of the voice and some adverse tractions effect easily a noisy inspiration and some fatigue, which prove fatal in the end, to the voice.

The lateral type does not bring any inconvenience if it finish the diaphragmatic inspiration, or if it does not give a too great preponderance to the clavicular inspiration as a finale.

[*To be continued.*]

---

‡ It cannot be too much requested of the pupils to study well the respiration; it is everything in singing. We recommend them to try every day, even without singing, to take and to retain as long as they can possibly their breathing, in following exactly the manner that we indicate in this article, relatively to the action of respiring when singing. They must work this exercise with care and moderation, but it must not be neglected. A singer who will not have exercised the respiration, will be obliged to respire often; but then his power is soon exhausted and his voice will emit but feeble and vacillating sounds. Without a great volume of air that the singer must know how to spare and manage a long time with skill, there is no force, neither tone in the voice; furthermore, without this faculty, it is not easy to have a fine phrasing in singing. A capital fault of which students must be preserved from, is to aspire with a kind of hiccough; it fatigues very much the singer, not to speak of his hearers. This fault destroys the strength of the lungs, and when once it becomes habitual, he is obliged to give up singing in a very short time afterwards.

BLUNDERS OF AUTHORS AND PAINTERS.

Though poets and painters may claim, in the proper exercise of their art, great license of invention and speech, and a far greater liberty of illustration and embellishment than is allowed to the sober writer of history, yet it seems plain that historical truth or chronological accuracy should not be entirely sacrificed to dramatic or pictorial effect. And this is more especially true when the poem or the picture is founded upon history, or designed generally to represent historical truth. Anachronisms, both ludicrous and strange, have been made by poets and painters, from whom more accuracy might have been expected. The "world's great poet," Shakspeare, in whose matchless works we seem, rather instinctively, to expect exactness in the details of time, place and circumstance, has in some instances curiously misplaced the true chronological order of some events, of the true state of which it can hardly be supposed he himself was ignorant. His contemporaries and successors were also guilty of great blunders in the same way, but a few only of those made by the great poet will be given.

In the play of "Coriolanus," Titus Lartius is made to say, addressing C. Marcius:

"Thou wast a soldier even to *Cato's* wish.

It is a little curious how Marcius could have been a soldier to "Cato's wish," for Marcius, surnamed Coriolanus, was banished from Rome, and died more then two hundred years before Cato's eyes first saw the light. In the same play Menenius says of Marcius, "He sits in his state as a thing made for Alexander," or like Alexander. The anachronism made in this case is almost as bad as that just given, for Coriolanus was banished from Rome and died not far from B. C. 490, and Alexander was not born until almost one hundred and fifty years after. And the poet in the same play makes still another error in the words which he puts into the mouth of Menenius, "the most sovereign prescription in Galen is but empiricatic." Now, as the renowned "father of medicine" was not born until A. D. 130, of which fact it seems hardly probable that Shakspeare could have been ignorant, he has overleaped more than six hundred years to introduce Galen to his reader.

In the tragedy of "Julius Cæsar" occurs an historical inaccuracy, which cannot be excused on the ground of dramatic effect. It must be imputed to downright carelessness. It is in the following lines:

> *Brutus.* Peace; count the clock.
> *Cassius.* The clock has stricken three.

Cassius and Brutus both must have been endowed with the vision of a prophet, for the first striking clock was not introduced into Europe until more than eight hundred years after they had been laid in their graves. And in the tragedy of "King Lear," there is another as great inaccuracy in regard to spectacles as that in "Julius Cæsar" respecting clocks. King Lear was king of Britian in the early Anglo-Saxon period of English history, yet Gloster, commanding his son to show him a letter which he holds in his hands, says, "Come, let's see; if it be nothing, I shall not want spectacles." It is generally admitted that spectacles were not worn in Europe until the very last of the thirteenth, or the commencement of the fourteenth century.

Shakspeare also anticipates in at least two plays, and by many years, the important event of the first use of cannon in battle or siege. In his great tragedy of "Macbeth," he speaks of cannon "overcharged with double cracks;" and King John says:

> "Be thou as lightning in the eyes of France,
> For ere thou can'st report, I will be there;
> The thunder of my cannon shall be heard."

Cannon, it will be recollected, were first used in Cressy, in 1346, whereas Macbeth was killed in 1054, and John did not begin to reign until 1199. In the "Comedy of Errors," the scene of which is laid in the ancient city of Ephesus, mention is made of modern denominations of money, as